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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,046	05/29/2001	Nathanael Hill	ER-090-US-01	6093

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EXAMINER	
HORTON, YVONNE MICHELE	
ART UNIT	PAPER NUMBER
3635	

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/867,046

Applicant(s)  
NATHANAEL HILL

Examiner  
YVONNE M. HORTON

Art Unit  
3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 1, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-38, 44-48, 50, and 52 is/are allowed.
- 6) ☒ Claim(s) 39-43, 49, and 51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Oct 23, 2002 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 49 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #6,403,465 to LIU et al. LIU et al. discloses a thermal barrier including a channel (150) disposed between a first and a second component (110) and having a layer of metal (130) bonded in the channel after being deposited from a plasma (IMP), and an adhesive composition (120) disposed in the channel (190); wherein the first and second structural components are bonded together.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #6,403,465 to LIU et al. LIU et al. discloses a thermal barrier including a channel (150) having a layer of metal (130) bonded in the channel after being deposited from a plasma (IMP), and an adhesive composition (120) disposed in the channel (190). LIU et al discloses the basic claimed thermal barrier except for explicitly detailing the amount of adhesive shrinkage and

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shear strength. Although LIU et al. is silent in this regard, it would have been an obvious matter of design choice to select a known material on the basis of its suitability for the use intended.

The applicant's details several different metals used in his thermal barrier. Thus, there does not appear to be any criticality in the type of metal used to form the barrier. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the selection of the type of adhesive would depend greatly on the kind of metal used to form the barrier. Hence, the selection of the desired amount of shrinkage and shear strength would also vary depending upon the kind of metal used.

*Allowable Subject Matter*

5. Claims 1-38,44-48,50 and 52 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 1-37, the prior art of record fails to teach the method of forming a thermal barrier by exposing metal plasma to at least a portion of a window, door or curtain wall casing. Although effecting a thermal barrier by depositing metal plasma appears to be old and very well known in the art, there is no indication of this particular method being formed on windows, doors, or curtail wall casings.

In reference to claim 38, the prior art of record fails to teach the method of forming a thermal barrier by using metal plasma deposits including the step of depositing a polyurethane adhesive.


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Regarding claims 44-48, the prior art of record fails to teach the method of forming a metal barrier using metal plasma deposits including the steps of removing a portion of the surface treatment.

*Response to Arguments*

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909.

  
Yvonne M. Horton  
Patent Examiner  
Art Unit 3635  
January 13, 2003